

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Original) A system for positioning an object by rotating the object about a remote center of rotation, the system comprising:

a non-movable part providing a stationary reference structure;

a movable part movable relative to the non-movable part;

a connector coupled between the movable part and the object for positioning the object adjacent the remote center of rotation and for rotating the object about the remote center of rotation responsive to movement of the movable part, a movement of the connector being responsive to a movement of the movable part;

a first force transmitting means coupled to the movable part for moving the movable part and the connector in a first direction, wherein movement of the connector in the first direction rotates the object about a first axis passing through the remote center of rotation; and

a second force transmitting means coupled to the movable part for moving the movable part and the connector in a second direction, wherein movement of the connector in the second direction rotates the object about a second axis passing through the remote center of rotation.

2. (Original) The system of claim 1, wherein the movement of the movable part in the first direction is orthogonal to the movement of the movable part in the second direction.

3. (Original) The system of claim 1, wherein the first force transmitting means includes at least a first flexure coupled to the movable part, the first flexure exhibiting a first stiffness in the first direction and a second stiffness in the second direction, the second stiffness being greater than the first stiffness.

4. (Original) The system of claim 3, wherein the second force transmitting means includes at least a second flexure coupled to the non-movable part, the second flexure exhibiting a first stiffness in the first direction and a second stiffness in the second direction, the second stiffness being greater than the first stiffness.
5. (Original) The system of claim 1, wherein the movable part is positioned in a plane that is movable in the first direction and the first force transmitting means moves the plane in the first direction.
6. (Original) The system of claim 5, wherein the plane is movable in the second direction and the second force transmitting means moves the plane in the second direction.
7. (Original) The system of claim 1, wherein the connector has an adjustable length.
8. (Original) The system of claim 1, wherein the movable part has an opening for receiving the connector, the opening and the connector being movable responsive to the movement of the movable part, and a slit dividing the movable part into a plurality of portions with the opening being located within one of the portions, the system further comprising a third force transmitting means for moving the portion having the opening.
9. (Original) The system of claim 1, wherein the connector extends beyond a volume formed by the plurality of flexures.
10. (Original) The system of claim 1, wherein the first and second force transmitting means include a plurality of flexures, each of the flexures having a longitudinal axis that passes through the remote center of rotation.
11. (Original) The system of claim 10, wherein the connector is disposed between the plurality of flexures.
12. (Original) The system of claim 10, wherein the plurality of flexures are made from a Cu-Be material.

13. (Original) The system of claim 10, wherein the plurality of flexures are made from a spring-steel material.

14. (Original) The system of claim 10, wherein the plurality of flexures are made from a material exhibiting a super-elastic effect.

15. (Original) The system of claim 10, wherein the plurality of flexures are made from a shape memory alloy.

16. (Original) The system of claim 10, wherein the plurality of flexures are made from a material selected from the group consisting of Ni-Ti; Ni-Ti-X where X is Cu, Hf, Zr, Pd, Co, or Fe; Cu-Zn-Al; and Cu-Al-Be.

17. (Original) The system of claim 10, wherein the plurality of flexures are made from a metallic material.

18. (Original) The system of claim 10, wherein the plurality of flexures are made from a plastic material.

19. (Original) A system for positioning an object by rotating the object about a remote center of rotation, the system comprising:

- a first part providing a reference structure;
- a second part movable relative to the first part;
- a plurality of flexures coupled to the second part for moving the second part relative to the remote center of rotation when at least one of the flexures is deflected;
- a connector coupled between the second part and the object for rotating the object about the remote center of rotation responsive to a movement of the second part;
- and
- a force transmitting means coupled to the plurality of flexures for deflecting the at least one flexure into at least one fixed configuration.

20. (Original) The system of claim 19, wherein the remote center of rotation is located inside the object.

21. (Original) The system of claim 19, wherein the remote center of rotation is located outside the object.

22. (Currently Amended) The system of claim 19, wherein the remote center of rotation is located on ~~the~~ a surface of the object.

23. (Original) The system of claim 19, wherein the connector holds the object in a fixed position relative to the remote center of rotation.

24. (Original) A system for positioning an object at a remote center of rotation, the system comprising:

- a non-movable part providing a stationary reference structure;
- a movable part movable relative to the non-movable part;
- a connector coupled to the movable part and the object for positioning a section of the object at the remote center of rotation responsive to a movement of the movable part; and

- a force transmission means coupled to the movable part for moving the movable part and positioning the section of the object at the remote center of rotation responsive to the movement of the movable part.

25. (Original) The system of claim 24, wherein the section of the object is in a plane that rotates about the remote center of rotation responsive to the movement of the movable part.

26. (New) A system for positioning an object by rotating the object about a remote center of rotation, the system comprising:

- a non-movable part providing a stationary reference structure;
- a movable part movable relative to the non-movable part;

a connector coupled between the movable part and the object for positioning the object adjacent the remote center of rotation and for rotating the object about the remote center of rotation responsive to movement of the movable part, a movement of the connector being responsive to a movement of the movable part;

a first force transmitting means coupled to the movable part for moving the movable part and the connector in a first direction, wherein movement of the connector in the first direction rotates the object about a first axis passing through the remote center of rotation; and

a second force transmitting means coupled to the movable part for moving the movable part and the connector in a second direction, wherein movement of the connector in the second direction rotates the object about a second axis passing through the remote center of rotation, and wherein the remote center of rotation is located one of inside the object, or outside the object, or on a surface of the object.